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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,505	06/15/2001	Philippe Roberge	209438US6XPC	5831
22850	7590	09/07/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			FERGUSON, MARISSA L	
			ART UNIT	PAPER NUMBER
			2854	

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/856,505	<b>Applicant(s)</b> ROBERGE, PHILIPPE	
	<b>Examiner</b> Marissa L Ferguson	<b>Art Unit</b> 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-20 are rejected under 35 U.S. C. 103(a) as being unpatentable over Neary et al. (U.S. Patent 3,882,721) in view of Catagrel et al. (EPO 0100715).

Regarding claim 11, Neary et al. teaches the invention including the weather vane for measuring orientation of the wind comprising the rotary base (15) and a vane (13) sensitive to the wind and fixed by a joint (Column 2, Lines 10-20). However he does not explicitly disclose a heater having a first dimension extending in one direction and a second dimension extending in a second direction wherein the vane has a hollow interior cavity having a shape large enough size wherein at least the first and second directions permit the heater to be directly inserted into the hollow interior cavity of the vane through the base of the vane without the heater completely filling the hollow interior cavity. Catagrel et al. teaches heater (1) and heater elements (See elements 17-21 and Figures 1-13) with first and second dimensions one dimension extending in a first direction and a second dimension extending in a second direction wherein the

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vane has a hollow interior cavity (Figures) and wherein the heater does not completely fill in the cavity (Figures 6-13).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention taught by Neary et al. to include the two dimensional heater and cavity as taught by Catagrel et al., since Catagrel teaches a 2-D heater in order to maximize heating area and a hollow cavity to permit the heater to be inserted and/or removed easily.

Regarding claims 12 and 14, Neary et al. teaches a means for connecting a heater against the interior walls of a vane (58) and an electrically insulating disc that is coated with a type of conducting grease (Column 3, Lines 1-12).

Regarding claims 13 and 16, Neary et al. teaches the claimed invention with the exception of the ceramic blocks held against two electrodes wrapped in an electrically insulating film with a positive temperature coefficient. However, electrodes that are wrapped in some type of insulation are well known and common in the art. For example, Catagrel et al. teaches a wind device that discloses ceramic blocks held against two electrodes wrapped in an electrically insulating film (21, Page 8, Lines 4-23) with a positive temperature coefficient (Page 2, Lines 31-35).

Since both Neary et al. and Catagrel et al. teach wind vane devices with heaters, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention taught by Neary et al. to include the ceramic blocks and electrodes taught by Catagrel et al. for the purpose of accurately measuring wind direction.

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Regarding claims 15 and 17, Neary et al. teaches a vent (39) that appears to be opposite the insertion orifice (See Figure 2) and wherein the heater has some type of thickness (it is obvious that the heater has some thickness).

Regarding claims 18 –20, Neary et al. teaches a heater that has a perpendicular profile with an ogive shape (56, Figure 3) and a vane that is in a shape of a tube with an inserted heater (See Figure 2), wherein the tube is minimized in a region of a leading edge of the vane (Figure 3).

### ***Response to Arguments***

2. Applicant's arguments filed 6/14/04 have been fully considered but they are not persuasive. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, Neary et al. teaches a vane type flow sensor with a heater wire element and Catagrel teaches heater electrode resistive elements that are also located in the vane. Both references teach the same principal of heating elements located in the vane providing a flow of heat radiating throughout the vane. The references still comply with the rejection, since both teach the required claimed elements.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa L Ferguson whose telephone number is (571) 272-2163. The examiner can normally be reached on (M-T) 6:30am-4:00pm and every other (F) 7:30am-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marissa L Ferguson  
Examiner  
Art Unit 2854

*MLF*  
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*Andrew H. Hirshfeld*  
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